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EXAMINER

TRAN, TUAN A

ART UNIT

PAPER NUMBER

2684

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/611,772

Applicant(s)

KRONER, HANS

Examiner

Tuan A Tran

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6,7,8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-22 and 27-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ue et al. (6,400,929) in view of O'Byrne (6,243,584).

Regarding claims 1-2, 7, 22 and 30, Ue discloses mobile radio communication device and method of controlling transmission rate, the method comprises: allocating a specific transmission rate to a connection established via radio communication interface between a base transceiver and a subscriber station in dependence of a connection-specific reception quality including signal strength (See col. 4 lines 3-10) of the radio communication interface based on measurements of the subscriber station (See figs. 8-11, 16 and col. 5 line 25 to col. 6 line 40, col. 6 lines 44-50). However, Ue does not explicitly mention that reception quality includes path loss and distance between the base station and the subscriber station. O'Byrne discloses a relationship between path loss, distance and signal strength (See col. 1 lines 60-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

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apply the O'Byrne's teaching into the method and system as disclosed by Ue in order to extend the application of the system.

Claim 32 is rejected for the same reasons as set forth in claim 1, as apparatus.

Regarding claim 3, Ue further discloses step of allocating the transmission rate in dependence of interference situation at a location of the subscriber station in a radio cell of the base transceiver station (See figs. 13-15 and col. 6 line 63 to col. 7 line 62).

Regarding claims 4-6, Ue further discloses the step of providing a variable transmission rate for transmitting at least one service with the connection wherein non-real-time service and real-time service as the at least one service and and carrying out an adaptive coding (See col. 5 lines 6-20, col. 6 lines 59-62).

Regarding claim 8, Ue further discloses varying the transmission rate in dependence of a relative transmitter power for the connection (See fig. 29 and col. 13 line 32 to col. 14 line 17).

Regarding claim 9, Ue further discloses varying the transmission rate in dependence of an absolute transmitter power for the connection (See figs. 11, 23-25 and col. 6 lines 19-40, col. 10 line 66 to col. 11 line 53).

Regarding claim 10, Ue further discloses varying the transmission rate in dependence of a current traffic load in a radio cell of the base transceiver station (See col. 13 lines 28-31, 40-46).

Regarding claims 11 and 28, Ue further discloses varying the transmission rate in at least one of a downlink direction and in an uplink direction in dependence of

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respective path losses and carrying out a joint detection method at a reception end in at least one of a downlink direction and an uplink direction (See col. 14 lines 49-65).

Regarding claim 12, Ue further discloses carrying out a subscriber separation in a radio communication system in accordance with a CDMA method (See col. 6 lines 60-62).

Regarding claim 13, Ue further discloses using spreading codes in at least one of a downlink direction and an uplink direction (See col. 10 lines 13-15, col. 14 lines 49-52, 58-65). However, Ue & O'Byrne do not mention using orthogonal spreading codes. Orthogonal spreading coding technique is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use orthogonal spreading codes in the system as disclosed by Ue & O'Byrne for the advantage of reducing co-channel interference in communications between base stations and mobile stations.

Regarding claim 14, Ue further discloses providing a set of transmission rates for the connection, the transmission rates being defined by respective spreading codes and respective spreading factors (See col. 11 lines 17-41).

Regarding claim 15, Ue further discloses carrying out, with a radio resource control layer in a radio communication system, a long-term transmission rate allocation in dependence of at least one of the path loss and a transmitter power (See fig. 28 and col. 5 lines 1-5, col. 5 line 25 to col. 6 line 40, col. 13 lines 19-31, col. 14 lines 23-37).

Regarding claims 16-18, Ue & O'Byrne disclose as cited in claim 15. Ue further discloses that transmission rate is selected among a rate set specified by the radio

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resource control later (See col. 14 lines 32-34). However, Ue & O'Byrne do not mention using a Transport Format Set configuration/reconfiguration procedure or Transport Format Set restriction procedure or utilization-level and connection-acceptance control function of the radio resource control layer. It is necessary to establish a rate set in accordance to a Transport Format Set configuration/reconfiguration procedure or Transport Format Set restriction procedure or utilization-level and connection-acceptance control function of the radio resource control layer in order to switch the transmission rate properly.

Regarding claim 19, Ue further discloses defining a set of different transport formats when the connection is set up; and selecting, with the MAC, a suitable one of the different transport format (See col. 14 lines 32-37).

Regarding claim 20, Ue further discloses defining a set of different transport formats when the connection is set up; and selecting, with the MAC, a suitable one of the different transport formats in a soft handover situation by taking into account all possible signal paths (See col. 14 lines 32-44).

Regarding claim 21, Ue further discloses carrying out path loss measurements for handover purpose (See col. 14 lines 38-52).

Regarding claim 27, Ue & O'Byrne disclose method for allocating the transmission rate in a communication system utilized CDMA. In the CDMA scenario, a single wideband is used for all users in the downlink direction.

Regarding claim 29, Ue & O'Byrne disclose as cited in claim 1, but they do not mention organizing the radio communication interface in accordance with a TDD

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method. TDD method, wherein transmissions in a downlink direction and in an uplink direction at separate times in a same frequency band, is a well-known modulation scheme in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the system as disclosed by Ue & O'Byrne utilized TDD for the advantage of extending the applications of the system.

Regarding claim 31, Ue & O'Byrne disclose as cited in claim 1, but they do not mention providing the radio communication system as a wireless subscriber line system. Wireless subscriber line system is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the system as disclosed by Ue & O'Byrne structured as a wireless subscriber line system in order to provide different services to users.

2. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ue et al. (6,400,929) in view of O'Byrne (6,243,584) as applied to claim 1 above, and further in view of Hottinen et al. (6,353,638).

Regarding claim 23, Ue & O'Byrne disclose as cited in claim 1. Ue further discloses the control between layers of the system (See fig. 28). However, they fail to show signaling a transmitter power for a carrier of the base transceiver station to a RNC via an Iub interface. Hottinen discloses signaling a transmitter power for a carrier of the base transceiver station to a RNC via an Iub interface (See figs. 1A, 1B, 4 and col. 8 lines 11-33). Therefore, it would have been obvious to one of ordinary skill in the art at

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the time the invention was made to modified the system as disclosed by Ue & O'Byrne by Hottinen in order to control transmission power properly.

Regarding claim 24, Ue & O'Byrne disclose as cited in claim 1, but they fail to show signaling a transmitter power for a carrier of the base transceiver station to a RNC via an lub interface by adding an appropriate field within an lub/lur user frame protocol. Hottinen discloses signaling a transmitter power for a carrier of the base transceiver station to a RNC via an lub interface by adding an appropriate field within an lub/lur user frame protocol (See figs. 1A, 1B, 4 and col. 8 lines 11-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modified the system as disclosed by Ue & O'Byrne by Hottinen in order to control transmission power properly.

Regarding claims 25-26, Ue & O'Byrne disclose as cited in claim 1, but they fail to show signaling a transmitter power for a carrier of the base transceiver station to a RNC via an lub interface by using independent periodic signaling message or event-controlled signaling message. Hottinen discloses signaling a transmitter power for a carrier of the base transceiver station to a RNC via an lub interface (See figs. 1A, 1B, 4 and col. 8 lines 11-33). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modified the system as disclosed by Ue & O'Byrne by Hottinen and further using independent periodic signaling message or event-controlled signaling message as intended use in order to extend the capability of the system as well as to control transmission power properly.



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3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ranta (6,339,697) discloses setting service level in digital mobile communication system.
- Nanda et al. (5,842,113) discloses method and apparatus for controlling power in a forward link of a CDMA telecommunications system.
- Fukusama et al. (6,041,034) discloses spread spectrum communication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan Tran** whose telephone number is **(703) 605-4255**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Daniel Hunter**, can be reached at **(703) 308-6732**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

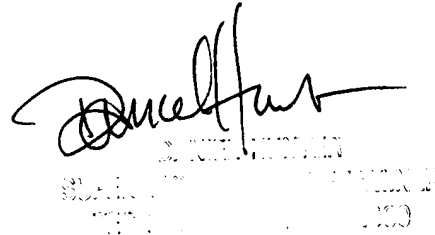
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



Tuan Tran

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